

More Energy:

• Law of Conservation of Energy:

- Energy can neither be created nor destroyed.
- Energy is transferred between categories.
- Net Energy \rightarrow total amount of energy in a system
- Total amount of energy must be the same before and after transformations.

- Energy Conversion Examples:

- Lightbulb

- Start with: Electrical

- End with: Light/Radiant

- Waste: Thermal



- Fan

- Start: Electrical

- End: Mechanical

- Waste: Sound, Thermal

- Mechanical Energy Conversion:
 - Conversion between kinetic energy and gravitational potential energy.

highest point		All GPE mgh	\emptyset KE $\frac{1}{2}mv^2$
	↓		
$\frac{3}{4}h$		$\frac{3}{4}$ GPE	$\frac{1}{4}$ KE
$\frac{1}{2}h$		$\frac{1}{2}$ GPE	$\frac{1}{2}$ KE
$\frac{1}{4}h$		$\frac{1}{4}$ GPE	$\frac{3}{4}$ KE
$h = \emptyset^m$		\emptyset GPE	All KE